HDTV Satellite Receiver

CX01

User Manual

Version: 20.06.2013 - V2 - English

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Introduction

Dear customer,

Thank you for buying a smart HDTV satellite receiver.

This user manual provides information on

- placement
- installation,
- adjustment
- operation,
- cleaning and disposal of the receiver.

Please carefully read the user manual before operating the receiver.

We hope you enjoy your smart receiver.

Your

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1 User Information

1.1 Use of this Manual

- This manual is intended for the HDTV cable receiver smart CX01.
- Please carefully read this user manual before operating the device for the first time.
- Please note all warnings and notes included in this user manual.
- Consider this user manual to be an integral part of the product, and store it at a well accessible location.
- This user manual should also be enclosed when handing over the device to a third party.
- In case of loss, the current version of the user manual can be downloaded at the support center on our website www.smart-electronic.de.
- The software is still being further developed even after your purchase of the device. Thus, it may be possible that certain operation steps do not fully correspond to the user manual.

1.2 Signs, Symbols, Layout

Symbol/layout	Meaning
	WARNING Danger due to electric shock with possible severe bodily injury
	CAUTION Warning of possible physical damage
	NOTE Useful information and hints
	You are requested to perform an action.
1. 2.	Perform these steps in the stated order.
●	List

Symbol/layout	Meaning
Italics	The various possibilities of settings as well as image captions are stated in *Italics*.
bold	Menu windows and menu items (that often include further hidden menu items or direct settings) as well as the designations of keys are printed in **bold** letters.

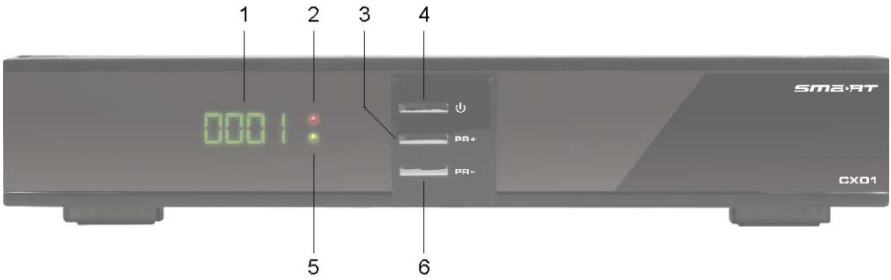
2 Product Description

2.1 Scope of Delivery

- HDTV satellite receiver smart CX01.
- remote control
- 2 batteries (AAA) for remote control
- user manual

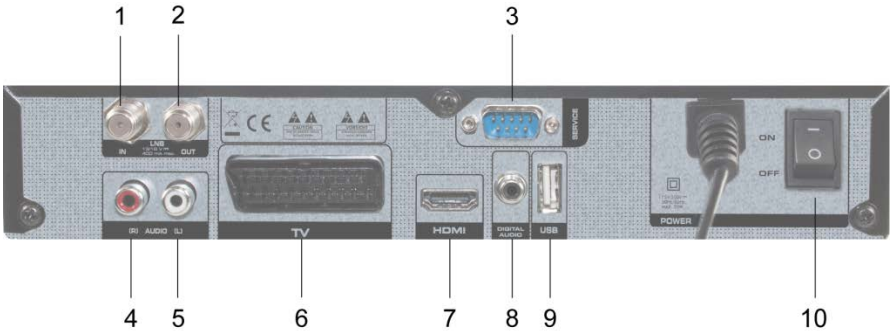
2.2 Receiver

2.2.1 Front Panel



No.	Description	
1	**Display**	4-digit display
2	**LED red**	Indicates, that the receiver is in Standby mode.
3	**PR+**	Channel up / up-navigation in menu
4	**STANDBY**	Switch between standby / normal operation
5	**LED green**	Indicates that a valid video signal is routed to the TV set.
6	**PR-**	Channel down / down-navigation in menu

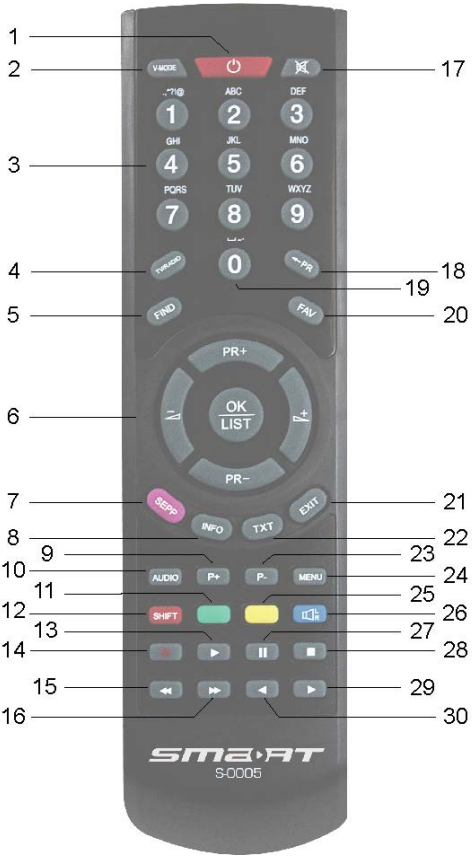
2.2.2 Rear Panel



No.	Description	
1	**LNB IN**	Connection for LNB (DVB-S)
2	**LNB OUT**	Loop-through satellite signal for connection of further receivers, a video cassette recorder or a TV device
3	**RS 232**	Service
4	**AUDIO (R)**	Analog audio signal right
5	**AUDIO (L)**	Analog audio signal left
6	**TV**	SCART connection for TV device (analog)
7	**HDMI**[1]	Digital audio and video out
8	**DIGITAL AUDIO**	Digital RCA audio out (SPDIF)
9	**USB**	Connection for external USB data storage
10	**ON / OFF**	Power switch (On/Off)

[1] High Definition Multimedia Interface (engl.), Schnittstelle für die volldigitale Übertragung von Audio- und Video-Daten.

2.3 Remote Control



No.	Key	Description
1	⏻	Switch between operational and standby mode.
2	**V-MODE**	Switch aspect mode
3	**1 - 9**	Direct channel selection
4	**TV/Radio**	Switch between TV and radio mode
5	**FIND**	Call of channel search function
6	**PR+**	Channel + or up-navigation in menu

No.	Key	Description
	PR-	Channel - or down-navigation in menu
		Volume + or menu navigation to the right
		Volume - or menu navigation to the left
	OK	Display channel list / confirm menu item
7	**SEPP**[2]	Call of EPG[3]
8	**INFO**	Display information on current channel
9	**P+**	10 entries up in menu / channel list
10	**AUDIO**	Selection of audio format
11		Green function key
12		Red function key
13		Play (media player)
14		Not used
15		Fast rewinding
16		Fast forwarding
17		Mute
18	**←PR**	Switch of previously selected channels
19	**0**	Select playback format of media player
20	**FAV**	Call list of favorites
21	**EXIT**	Exit menu or menu item
22	**TXT**	Display / hide teletext
23	**P-**	10 entries down in menu / channel list
24	**MENU**	Call main menu
25		Yellow function key
26		Blue function key
27		Pause playback
28		Stop playback

[2] SEPP = Smart Elektronic Program Portal
[3] EPG = Electronic Program Guide

No.	Key	Description
29	▶	Slow forwarding – slow motion
30	◀	Slow rewinding

2.4 Save Energy

The receiver smart CX01 is equipped with particularly energy-saving electric and electronic components. Furthermore, a sophisticated energy management helps to save energy:

Thus, energy consumption during Save Energy Standby Mode is reduced to less than 1 Watt!

2.5 Guarantee

The warranty of the HDTV satellite receiver smart CX01 of smart electronic GmbH corresponds to the legal regulations at the time of purchase.

3 General Safety Instructions

3.1 Intended Use

The HDTV satellite receiver smart CX01 is intended for private receiving of digital satellite television (DVB-S/S2). It is exclusively intended for such purpose and must be used exclusively for such purpose.

Any other use is deemed to be unintended use.

3.2 Risks in Case of Intended Use

CAUTION!

Humidity, wrong mains voltage and/or wrong mains frequency, lightning stroke or mechanical overload may cause malfunction of or damage to the device.

- Ensure that the receiver (in particular the mains plug) and the remote control are not exposed to any humidity. Example: Do not place filled flower vases or similar onto the receiver.
- Only connect the receiver to 175…250 V ~, 50/60 Hz.
- Disconnect mains plug in case of thunderstorms or malfunction.
- Do not place heavy items onto the receiver.
- Do not bend or squeeze the cable.

WARNING!

Risk of electric shock when contacting mains voltage.

Damage to housing, mains cable or improper repair may result in contact to mains voltage.

- Do not place heavy items onto the receiver.
- Do not bend or squeeze the cable.
- Repairs of plug, cable or receiver should only be performed by qualified specialists.

3.3 Location

- Place the receiver onto a solid and level surface.
- Protect the receiver from humidity, heat, dust and dirt.
- Do not place items filled with liquid, e.g. flower vases, onto the receiver.
- Protect the receiver from dripping and splash water.
- Do not place burning items, e.g. burning candles, onto the receiver.

- Ensure sufficient ventilation (ventilation slots must not be blocked): the receiver should have a distance of at least five centimeters to its surrounding elements on all sides.
- Ensure that the ventilation openings are not covered by objects such as newspapers, table cloths, curtains etc.
- Only operate the receiver in moderate climate (not in tropical climate).
- Place the receiver so that the mains plug can be disconnected at any time, correspondingly disconnecting the device from the mains.

If the device is transported from cold to hot environment, then condensing humidity may build up in the device.

- Do not connect the device, but leave it switched-off for some hours.

3.4 Grounding

The satellite antenna must be grounded properly. Note the relevant VDE[4] regulations[5].

smart recommends that the outdoor unit of the satellite system should be installed by a professional!

[4] VDE = Verband der Elektrotechnik, Elektronik, Informationstechnik (German) = Association for Electrical, Electronic & Information Technologies
[5] DIN EN 60728-11 VDE 0855-1:2011-06: Cable networks for television signals, sound signals and interactive services, Part 11: Safety

3.5 Handling of Batteries

- Batteries should always be out of children's reach.
- Leaking batteries cause damage to the environment and the remote control.
- Batteries should not be exposed to extreme heat, e.g. sunlight, fire etc.

➢ Dispose of the batteries in accordance with the applicable legal regulations (see chapter Disposal, page 72).

3.6 Notes on Product Liability

In the following cases, the intended protection of the device may be limited. Then, liability regarding function of the device correspondingly passes over to the operator:

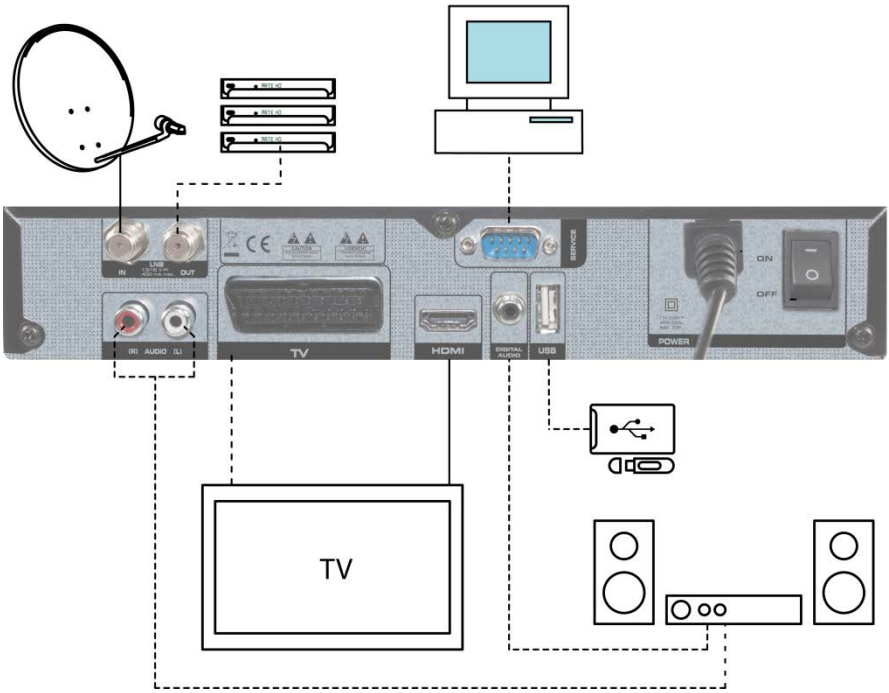
- The device is not used in accordance with the user manual.
- The device is used out of the field of application as described above.
- The operator performs unauthorized changes of the device.

4 Installation of smart CX01

CAUTION!

- First connect the receiver to the satellite antenna and any other devices before connecting the mains plug to the power outlet.
- Please also note the user manuals of the other devices.

4.1 Connection Scheme



default connection

optional connection

4.2 Connect Satellite Antenna

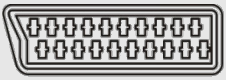
- Connect the antenna cable to the receiver connection **LNB IN**.

  Further receivers can be connected at the connection **LNB OUT**. The signal is

looped through from input **LNB IN** (see section "LNB IN / OUT Loop Through (Loop Standby)", page 63).

4.3 Connect TV Set

As stated in the connection scheme, the smart CX01 offers various possibilities to connect TV set and receiver. The possibilities applicable to you depend on the connection possibilities of your TV set.

Am Fernsehgerät ist ein HDMI-Anschluss vorhanden.	**Am Fernsehgerät ist kein HDMI-Anschluss vorhanden:**
 HDMI	 TV
➢ Fernseher und Receiver mit einem HDMI-Kabel verbinden.	➢ Fernseher und Receiver mit einem Scart-Kabel verbinden.

➢ If your TV set offers both possibilities then always choose connection via HDMI cable.

This ensures best possible audio and video quality with digital signals.

4.4 Connect Home Cinema System (Optional)

To improve audio playback, you can connect to the smart CX01 - additionally to the TV set - also a multichannel home cinema system or a hi-fi system. There are various possibilities for connection. Your type of connection depends on the connection possibilities of your home cinema system.

a.

Your home cinema system is able to loop through an HDMI signal, i.e. HDMI connection for receiver and HDMI connection for TV set.	
➢ Connect the home cinema system and the receiver by using an HDMI cable as well as home cinema system and TV set by using an HDMI cable.	

b.

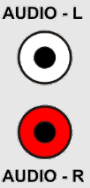
Your home cinema system can process digital audio data – connection for digital data is present.

➢ Connect your home theater system and your receiver with a cinch cable.

c.

Your home cinema system can not process digital audio data – no connections for digital data present

➢ Connect the home cinema system and the receiver by using a 2-pole RCA cable (stereo).



➢ If your home cinema system (hi-fi system) supports HDMI connection, then use such connection.

This ensures best possible audio and video quality with digital signals.

4.5 Connect Data Storage (Optional)

Connect a data storage (USB stick or hard drive with USB connection) at the USB connector to be able to access MPEG, MP3, JPG or other media data files.

4.6 Connect Power Supply

➢ When all devices are properly connected to the receiver you can connect the mains plug to the power outlet.

4.7 Insert Batteries of Remote Control

This describes the steps for inserting new batteries of the remote control or for replacing empty batteries:

1. Open the battery compartment on the bottom side of the remote control. Remove the cover of the battery compartment.

2. Place the two batteries 1.5 V (type: AAA).

   Ensure correct polarity!

3. Close the battery compartment

- Replace the batteries if certain remote control functions are not performed any more or are performed incorrectly.
- When replacing batteries, always ensure that all batteries are replaced.

5 Basic Operation

This chapter describes the required steps to be able to use the offer of radio and TV channels provided via satellite.

5.1 Initial Start-Up

After first switching-on or after resetting the receivers, various windows will open:

5.1.1 Switch on Receiver

1. Switch on all connected devices.
2. Ensure that the correct AV input is selected at the TV set (i.e. that the signals from the receiver are displayed).
3. Ensure that the correct audio input is selected at the connected home cinema or hi-fi system.
4. Switch on the receiver by using the power switch (on the rear panel of housing) (I, ON).

5.1.2 Language

By default, the smart CX01 language is preset to *Deutsch* [German].

Please ensure that the setting is correct; you may change your settings by correspondingly pressing the keys **PR+** and **PR-**.

➢ Confirm by pressing **OK** to go to the next window.

The submenu **Language** can be accessed anytime via the menu **Language**.

5.1.3 RAPS Start

Your receiver is equipped with RAPS. RAPS means **R**eceiver **A**utomatic **P**rogramming **S**ystem. RAPS can automatically update the channel lists of your receiver.

What is RAPS?

Currently, the satellites Astra 19.2° and 23.5°, Eutelsat Hot Bird 13° East, Eurobird 9° and Turksat 42° offer a four-digit number of digital TV and radio channels.

At delivery, state-of-the-art satellite receivers have all important channels already stored. But what happens after that? New and interesting channels are added almost weekly, and there are channel changes time and again.

Updating the channel list with a present receiver is not quite easy for most users. When performing a channel search, invalid data are not deleted, and usually the new channels are just added at the end of the list; this requires time-consuming reprogramming of the channel list.

The RAPS system of your CX01 automatically performs such programming work.

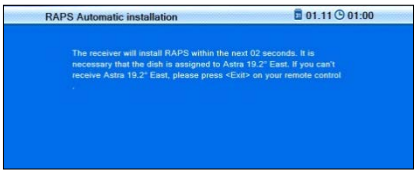
The window **RAPS Automatic Installation** is the second window of the installation process.

Every time you switch off your receiver, RAPS checks whether there are any changes with the channel lists (RAPS scan). This only takes a few seconds.

In case of changes, the new data are automatically included into the new channel list (RAPS download) and displayed in a table. If a channel changes the receive parameters, then this is automatically updated by RAPS. In case of new channels, such channels are added. If channels are permanently discontinued, then the corresponding channel number is deleted.

However, new channels are not only added, but allocated to logic blocks, correspondingly enabling easier finding. That is why certain areas may remain free. Example: For Germany, there is the basic list as well as the areas Third Channels, Info+Sports, Special Interest, Local TV, as well as News starting at channel number 100 and many Music Channels starting at channel number 123.

You can cancel RAPS installation by pressing the key **EXIT** whilst the countdown of RAPS installation is running (and also at a later point in time during installation).

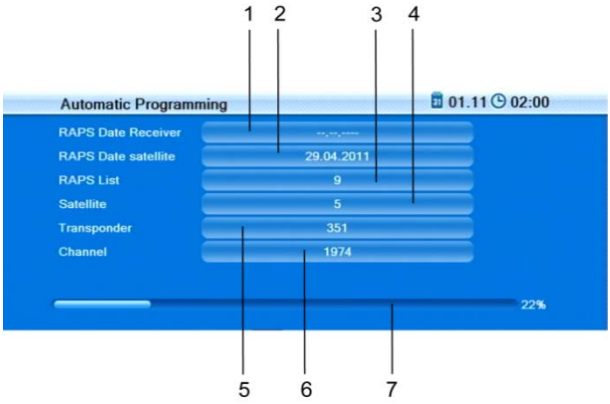

RAPS Automatic installation
01.11
01:00
The receiver will install RAPS within the next 02 seconds. It is necessary that the dish is assigned to Astra 19.2° East. If you can't receive Astra 19.2° East, please press <Exit> on your remote control

The then displayed channel list is a preprogrammed factory list. However, such list is not updated via satellite due to cancelled RAPS installation!

The respective up-to-date RAPS lists are available via the satellite Astra 19.2°. Correspondingly, RAPS can only be used within the footprint of the satellite Astra 19.2°; furthermore, your system should be suitable for digital Astra receiving.

5.1.4 RAPS Parameters

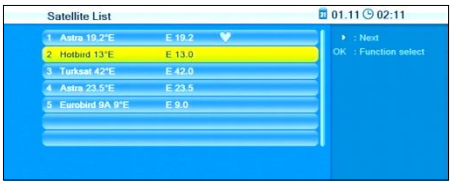
During installation, the third installation window **Automatic Programming** displays various parameters:



No.	Meaning
1	Date of the RAPS file stored in the receiver
2	Date of the RAPS file currently available on the satellite
3	Number of available RAPS lists
4	Number of satellites included in the RAPS file: Astra 19.2° East[6] Hotbird 13° East Turksat 42° East Astra 23.5° East Eurobird 9A 9° East
5	Number of transponders included in the RAPS file
6	Number of all channels in the RAPS lists
7	Progress bar: informs on progress of download of the RAPS file

[6] East, often abbreviated "E"

5.1.5 Satellite List


Satellite List
01.11 02:11
1 Astra 19.2°E E 19.2
2 Hotbird 13°E E 13.0
3 Turksat 42°E E 42.0
4 Astra 23.5°E E 23.5
5 Eurobird 9A 9°E E 9.0
: Next
OK : Function select

After completion of RAPS download and completed satellite scan (RAPS DiSEqC[7] scan), the window **Satellite List** will be opened.

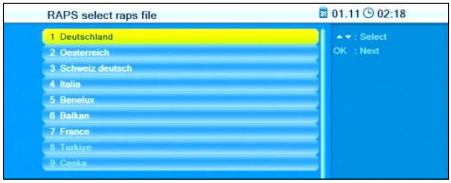
The window displays the satellites included in the RAPS file. As the RAPS lists are available via the satellite Astra 19.2°, Astra 19.2° is already marked (and cannot be deselected!).

- Select a satellite by pressing the keys **PR+** and **PR-.**
- Press **OK** to select a non-marked satellite.
- Press **OK** to deselect a marked satellite.
- Press to go to the next window **RAPS select raps file**.

Examples:

- Your antenna system is designed for receiving Astra 19.2°E and Hotbird 13°E. These satellites are found and marked in the list. You are planning to soon extend your antenna system for receiving of Eurobird 9A 9°E. You can additionally mark Eurobird 9A 9°E already now to avoid repeated installation in the future.
- Your antenna system is designed for receiving Astra 19.2°E and Türksat 42°E. However, the receiver in the children's room should only receive the German channels. For this, manually deselect Türksat 42°E (found by RAPS-DiSEqC scan).

5.1.6 Country



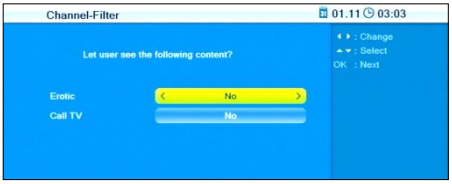
- Select the country in which you want to use the receiver - and correspondingly also the RAPS list - by pressing the keys **PR+** and **PR**. The selectable countries are based on your satellite selection as per section 5.1.5.
- Press **OK** to go to the next window **Your regional channel**.

[7] DiSEqC = Digital Satellite Equipment Control, a digital control signal technology with satellite receiving systems

5.1.7 Regional Channel

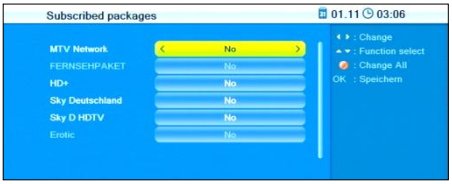
- Select your preferred regional channel (which will be stored at number three in the channel list) by pressing the keys **PR+** and **PR**.
- Press **OK** to go to the next window **Channel-Filter**; here you can select if you want to include erotic channels and call TV (channels that may incur quite high telephone costs due to telephone calls to the channel) into the channel list.

5.1.8 Channel-Filter



- Select Erotic and/or Call TV by pressing the keys **PR+** and **PR-**, and select the option (*Yes*) to include such channels into the channel list or (*No*) to not include such channels by respectively pressing + or −.
- Press **OK** to go to the next window **Subscribed packages**; here you will be asked if pay TV providers should be included into the channel list.

5.1.9 Subscribed Packages



- Select the various subscribed packages by pressing the keys **PR+** and **PR-**, and make a selection to include the corresponding channels into the channel list (*Yes*) or not (*No*) by respectively pressing + or −.
- Press **OK** to store your settings and to finish installation of the RAPS channel list. After this, TV operation will automatically start.

5.2 Select Operation Mode

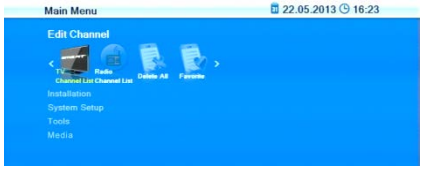
TV is the operation mode after first switching-on of the receiver (or after restoration of factory settings).

You can select between the operation modes TV (TV channels) and RADIO (radio channels) as follows:

- Press the key **TV/RADIO** on the remote control.
- Press again the key **TV/RADIO** to return to the previous operation mode.

5.3 Call/Leave Menu

- To call the menu, press the key **MENU** (of the remote control or at the receiver).
  The menu is called.



  The following is displayed in the headline of the various menu windows:

  1 Name of menu window
  2 Current date
  3 Current time

- Press the **EXIT** key to leave the menu or to go back one step.

In could be possible that you have to press **EXIT** several times to go back to TV mode.

5.4 Menu Navigation

The menu items with the settings for TV and radio can be respectively accessed in the two operation modes TV and Radio.

For menu navigation, you can use both the keys at the receiver as well as the remote control:

- Press **CH+/PR+** to select the menu item above.
- Press **CH-/PR-** to select the menu item below.

- Press to change resp. increase the selected value.
- Press to change resp. decrease the selected value.

Instead of changing a value by using the keys and , with many menu items you can also press the **OK** key, select a new value from the list, and confirm such value by again pressing the **OK** key.

Active menu items are color-marked.

Although most settings for TV operation are made, you can also make some further settings via the menu.

5.5 Parental Lock

In the sub-menu **Parental Lock** you can lock access to certain menus by using a PIN (e.g. for protection of your settings) or block selection of certain channels by using a PIN.

Access the sub-menu Parental Lock as follows:

1. Press the **MENU** key.
2. Select the menu **System Setup**.
3. Select **Parental Lock** and confirm by pressing **OK**.

   After entry of password, you may

   – set if access to the sub-menus is protected by password,
   by selecting the **Menu Lock** and selecting *Off* or *On* by using the keys or ;

   – set if certain channels are to be locked by a PIN,
   by selecting **PIN** and selecting *Off* or *On* by using the keys or ;
   or

   – change the password:

   1. Select the field **New Password**.
   2. Enter a new password.
   3. Go to the field **Confirm Password**.
   4. Again enter the new password.

Predefined, both the menu and the program lock are *off*. The default password is *0000*.

1. Press **OK** to save your changes and to leave the sub-menu.
2. Leave the menu by pressing **EXIT** until the screen shows the TV picture.

Instead of completely leaving the menu, you can also further stay in the menu - or in the sub-menu - to perform further settings.

5.6 Set Time

Reasonable operation of the smart CX01 require setting of system time. By default, the receiver is set to **GMT**[8] **Usage**, i.e. date and time are taken from the received signal. Time zone is set to GMT + 1 hour (+ 1:00) by default. Required changes can be made in the sub-menu **Time**:

1. Select the menu **System Setup**.
2. Select the sub-menu **Time** and confirm by pressing **OK**.
3. Select the item **GMT Usage** and switch on or off **GMT Usage** by using the keys + or −.
   On = automatic time setting via satellite signal is activated.
   Off = automatic time setting via satellite signal is deactivated.

smart recommends to keep the presetting (**GMT Usage** *On*).

4. Select the item **GMT** and select your time zone by using the keys + or −; for example, the time zone of Germany, Austria and Switzerland is **GMT +1:00**.
5. Select the item **Summer Time** and switch **Summer Time** *Off* or *On* by using the keys + or −.

[8] GMT = Greenwich Mean Time

➢ Please verify the presetting and correct them, if required. Please also consider corresponding change of those settings.

6. If automatic time setting (**GMT Usage**) is switched off, then date and time should be manually entered:
   For this, select the item **Date**, select the position to be changed by using the keys + or −, and enter the current date by using the numeric keys.
   Then, select the item **Time**, select the position to be changed by using the keys + or −, and enter the current time by using the numeric keys.
7. Leave the menu by pressing **EXIT** until the screen shows the TV picture.

5.7 TV

You have several possibilities to select a channel:

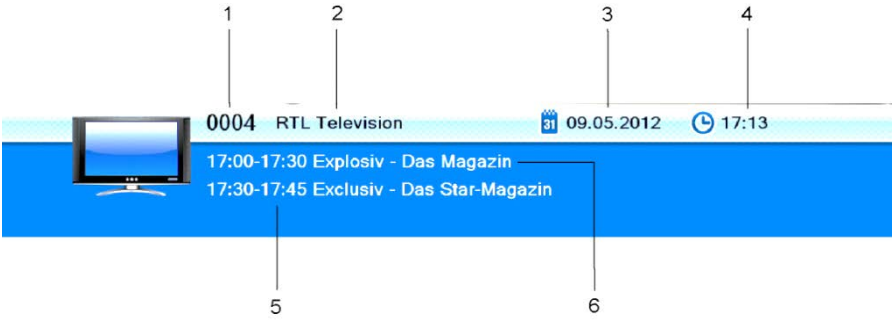
- Direct channel selection;
- Channel selection via selection window; and
- Channel selection via search function;

as explained in the following sections.

5.7.1 Direct Channel Selection

➢ Select the desired channel by using the keys **PR+** and **PR-**.

With each change of channel, an information window with information on the current channel will be displayed:



No.	Description
1	Channel number of current channel in current channel list
2	Channel name of current channel
3	Date
4	Time
5	Name of next program
6	Name of current program

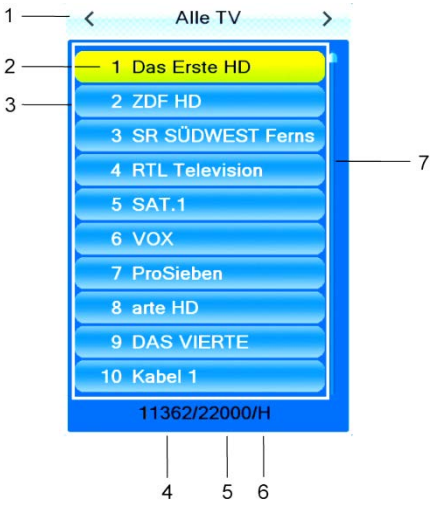
➢ Press the **INFO** key to call this window at any time.

➢ Set display time at **OSD Timeout** (see section 7.9, page 62).

➢ Press **EXIT** two times to close the information window.

5.7.2 Channel Selection via Selection Window

1. Press the **OK** key to display a selection window with all available channels (3).
2. Select the channel list with the desired channel by using the keys + or − (1)
   or
   Press the FAV key to select from your favorite lists (see p. 55).



3. Select the channel to be displayed (2) by using the keys **PR+** and **PR-** for single steps or **P+** and **P-** for steps of ten, and confirm your selection by pressing **OK**.
   The channel will be correspondingly switched.
4. Press **OK** or **EXIT** to close the selection window.

Channel selection window:

No.	Description
1	Display of current channel list
2	Marked channel
3	Channels included in the current channel list
4	Frequency of current channel (example: 33800 is 338.00 MHz)
5	Symbol rate of current channel (in megasymbols/second)
6	Polarization of current channel
7	Scroll bar – shows position of current channel in channel list

5.7.3 Channel Selection via Search Function

The channel lists can be quite comprehensive; correspondingly, the smart CX01 offers various possibilities to filter the list, search for channels in the list, or sort the list:

- Press the **FIND** key to open the window **Find**.
- Select one of the offered options by using the keys **PR+** and **PR-**, and confirm by pressing **OK**.

5.7.3.1 HDTV Filter

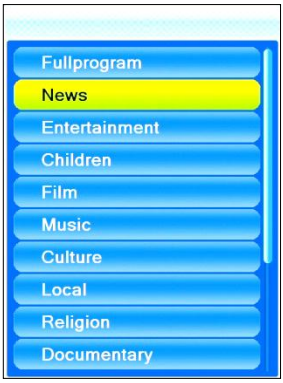
- Select *HDTV* to only show HDTV channels in the channel selection window.
- Use the steps as described in 5.7.2 to select a channel.

5.7.3.2 Genre Filter

Select *GENRE* to show the genre selection window (1).

1 2

- Select the desired genre by using the keys **PR+** and **PR-**, and confirm by pressing **OK**. The channel selection window will open as second window; this window only shows channels with the selected genre.



- Press **EXIT** to close the channel selection window. Now you can choose another genre.

5.7.3.3 Find Channels (by Alphabet)

1. Press the **FIND key**, to open the window **Find**.
2. Select a character by using the keys + and − as well as **PR+** and **PR-** and respectively confirm by pressing **OK** to accept such character in the field for the name or part of the name of the desired channel.

Additionally to letters and numbers, there are also special buttons:

Button	Meaning
CAPS (yellow function key)	Changes between upper-case and lower case (only effective with letters).
DEL (red function key) or **<-**	Deletes the last entered character.
OK (blue function key)	Closes the windows.
SP	Enters a space character.
?	The question mark as first character has a wildcard function. Example: "?R" searches for all channel names that include an "R".

2 1

As soon as the first selected character has been confirmed by pressing **OK**, a second window will open, showing all channels starting with this character (in most cases, the first character is a letter).

- Press **EXIT** to close window 1, provided that selection is sufficiently arranged for your purposes. Now, you can select the desired channel in window 2 by using the keys **PR+** and **PR-**, and confirm by pressing **OK**.
- Return to entry of characters (see above) to further limit channel selection.

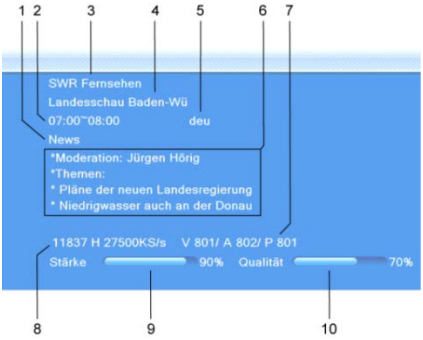
5.7.3.4 Sort Channel List (by Alphabet)

- Select *Sort (A-Z)* or *Sort (Z-A)* to sort the displayed channels in ascending or descending alphabetical order in the channel selection window.

☞ With all of the functions as described in 5.7.3, the made selection or sorting is deleted as soon as a channel is selected by pressing **OK**, i.e. if you are then pressing the **OK** key to show the channel selection window, the channel selection list is displayed in its previous original state.

5.7.4 Program Information

Press the **INFO** key twice. The window on the right will be displayed:



No.	Description
1	Genre
2	Start time and end time of current program
3	Name of current channel
4	Name of current program
5	Language of current program
6	Detailed information on current program
7	DVB PIDs for video, audio, PCR[9]
8	Frequency, Polarization (H = horizontal, V = vertical), Symbol rate
9	Signal strength
10	Signal quality

5.7.5 EPG

The Electronic Program Guide is a comfortable tool, replacing a printed TV guide.

[9] PID = Packet IDentifier, each table or each elementary stream in a transport stream is identified by a 13-bit PID. PCR = Program Clock Reference; required to enable the decoder to perform correct presentation regarding time and speed.

5.7.5.1 Single EPG

➢ Press the **SEPP** key of the remote control.
The window **Single EPG** (information on **one** channel) will open.

No.	Description
1	All programs during a day, with start and end time; the selected program is color-marked.
2	Date of day to which display applies.
3	Duration of current program (start time ~ end time).
4	Name of current program.
5	Illustration of the colored function keys and their functions.
6	Detailed information on the current program.

➢ Press the keys **PR+** and **PR-** to display a later or earlier program (1).

➢ Press the keys + and − to page forward/back respectively one day (2).

➢ Press the **green function key** to scroll down in the information section (6).

➢ Press the **red function key** to scroll up in the function area (6).

➢ Press the **yellow function key** to include channel, date, switch-on time and duration of the marked program into a timer. The **Timer Mode** is set to *Once* by default; **Timer Service** is set to *Channel*. You may change settings as described in section 7.4, page 59.

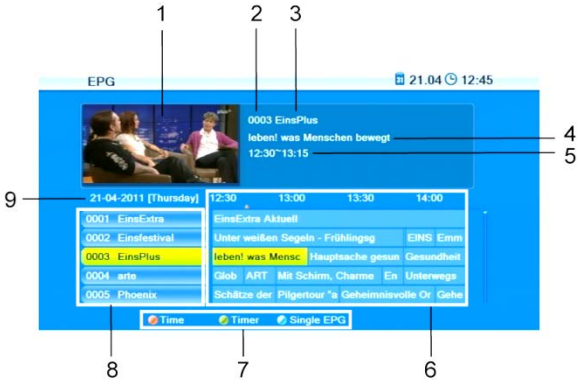
➢ Press the **blue function key** to go to the window **EPG**.

➢ Press the **EXIT** key to close the window **Single EPG** and return to TV operation.

5.7.5.2 EPG

After pressing the **blue function key** in the window **Single EPG** you will access the window **EPG** with the following display:

The current program is marked with ▲.



No.	Description
1	Thumbnail of selected channel.
2	Channel number of selected channel.
3	Name of selected channel.
4	Name of selected program.
5	Start time and end time of selected program.
6	Current and next program with a timeframe of approx. 1.5 hours for the marked channel.
7	Illustration of the colored function keys and their functions.
8	All channels included in the current channel list.
9	Day to which the displayed data apply.

- Press **OK** to open a window with detailed information on the selected program.
  Press the **OK** key, the **red function key** or the **EXIT** key to close such window.
- Press the keys **PR+** and **PR-** to flip through all available channels.
- Press the keys + and − to page back and forward respectively one program within a channel.

- Press the **red function key** to access the window **Time**:
- Here, select the function on the bottom by using the keys + and −:

  - Press OK when is selected to go to the current program. The current program is marked with .
  - Press OK when ◀ ▶ is selected to go one program forward or back.
  - Press OK when ◀◀ ▶▶ is selected to go two hours forward or back.
  - Press OK when ◀◀◀ ▶▶▶ is selected to go one day forward or back.
  - Press OK when is selected or press EXIT to close the window **Time** and to return to the EPG window.
- Press the **green function key** to include channel, date, switch-on time and duration of the marked program into a timer. The **Timer Mode** is set to *Once* by default; **Timer Service** is set to *Channel*. You may change settings as described in section 7.4, page 59.
- Press the **blue function key** to leave the **EPG** window and return to the window **Single EPG**.
- Press the **EXIT** key to leave the **EPG** window and return to the TV program.

5.7.6 Audio Settings

1. Press the key **AUDIO**.
2. Select the audio mode by using the keys + and −.
   Depending on the selected channel and the current program, the following modes are available: *Left - Right - Stereo - Mono.*
3. Press the keys **PR+** or **PR-** to select another language or Dolby AC3 (Dolby Digital) as far as provided by the TV station.
4. After selecting the desired audio mode, leave the menu by pressing the **EXIT** key.

5.7.7 Teletext

Teletext is an information system displayed on your TV set. Teletext is only possible if the selected channel supports such function.

- Press the **TXT** key to activate teletext.
- Press the **EXIT** or **TXT** key to deactivate teletext.

5.7.8 Subtitles

If subtitles are offered for the program in the selected channel, these can be activated as follows:

1. Press the keys **TXT** to open the selection window **Subtitles/Teletext**.
2. Press the keys + and − to select *Subtitle* and confirm with **OK**. Another window **Subtitle Language** appears.
3. With the keys **PR+** or **PR-** select a line *Subtitle language* and confirm your selection with **OK** to activate subtitles. Only if several subtitle languages are being sent there will appear several lines *Subtitle language*. If for example only German subtitles are sent, *deu(D)* is preset as subtitle language.

To switch off the subtitles proceed as follows:

1. Press the key **TXT** to open the selection window **Subtitles/Teletext**.
2. Press the keys + and − to select *Subtitle* and confirm with **OK**. Another window **Subtitle Language** appears.
3. With the keys **PR+** or **PR-** select the line *SUB OFF* and confirm your selection with **OK** to deactivate the subtitles.

5.7.9 Aspect Mode

5.7.9.1 Setting the Aspect Mode with the V-MODE key

- Press the **V-MODE** key several times to set the aspect ratio. Possible values: *Auto*, *4:3PS*, *4:3LB*, *16:9LB* (see below table).

5.7.9.2 Setting the Aspect Mode via the Menu

Select **Aspect Mode** to set the aspect ratio by using the keys + and −.

Value	Meaning
Auto	Default setting: the receiver selects optimum value
4:3PS	For playback with a 4:3 screen, PS = Pan & Scan: • 4:3 program: picture is optimally displayed. • 16:9 program: picture height is adjusted to screen; picture information on the right and left are missing.
4:3LB	For playback with a 4:3 screen, LB = Letterbox • 4:3 program: picture is optimally displayed. • 16:9 program: picture width is adjusted to screen; lacking height is filled up by black bars.
16:9	For playback with a 16:9 TV set

5.7.10 Video Resolution

➢ In the menu **System Setup**, select the sub-menu **TV System** and confirm by pressing **OK**.

1. Select **Video Resolution**.
2. Press **OK** to display a list with the selectable values.
3. Select the value appropriate to your TV set by using the keys **PR+** and **PR-**.
   Example: If your TV set is capable of displaying a resolution of 720p[10] then you should also set 720p at the receiver (720p is the factory setting).

☞

If receiver and your TV set are connected via a SCART cable, then max. resolution is 576i (PAL format).

In addition to the setting in the menu, the video resolution can be changed directly via the remote control:

➢ Press (several times, if necessary) the **green function key** to switch the resolution of the video signal at the HDMI output. The set value is shown in the display.

[10] p = progressive scan: progressive scan images are transmitted, e.g. 720p means that 50 progressive scan images with a resolution of 1280 pixel/line and 720 lines/image are transmitted per second.
i = interlaced video: odd and even lines are transmitted alternatingly.

5.7.11 Recall

➢ Press the ←PR key to go to the last viewed channel.

5.7.12 Sleep Timer

The smart CX01 comprises of a Sleep-Timer that enables an automatic change of the device from the operating mode to the standby mode:

1. Select the submenu **Local Time Setting** in the menu **System** and press **OK**.
2. Using the buttons **PR+** and **PR-** select the menu item **Sleep-Timer**.
3. Press the buttons + und − to activate the **Sleep Timer** and define a time between 10 and 120 minutes after which the receiver automatically switches over to the standby mode.
4. Press two times **EXIT** to return to the TV program.

6 Media Player

The menu **REC** is divided into submenus: **Media Player**, **PVR Storage** and **PVR Setting**.

The **Media Player** can be used to play MPEG, MP3 and JPG files available on the data storage.

1. Open the Media Player by selecting the item **Media Player** in the menu **REC** and confirming by pressing **OK**
   or
   by pressing the **yellow function key**.

2. Press the key **0** until the upper line states the desired file on the very left.
   The folder structure now only displays the files corresponding to the desired file type.

> Only after selecting e.g. music, this will display available music files.

3. Press ▼ / **PR**- to select the connected data storage, and confirm by pressing **OK**.
   The present directories (and files as far as they correspond to the selected file type) will be displayed.
4. Select the file to be played (press **OK** to open a directory).
5. Press **OK** to start playback (or press the key ▶).
6. Use the keys ▶, ⏸, ■, ◀◀, ▶▶, ◀ and ▶ to control playback.

The buttons on the bottom edge of the Media Player window provide further functions. Such functions depend on the selected file type (music, images, videos).

6.1 Music

6.1.1 Playback

1. Select the track to be played by using the keys **PR+** und **PR**-.

2. Press **OK** to start playback.
3. Use the keys ▶, ■, ◀◀ and ▶▶ to control playback.

6.1.2 Playlist

6.1.2.1 Creating a Playlist

➢ Select a track by using the keys **PR+** and **PR-** and press the **green function key** to add this to the playlist (favorite list).
The respective track is marked with a heart symbol.

You can repeat this procedure for all tracks to be added to the playlist.

➢ Press the **yellow function key** to add all tracks from the current directory to the playlist.
If pressing the **yellow function key** again, the playlist will be completely deleted.

➢ Press the **SHIFT** key (red) to display the favorite list (playlist).
A new window **Show Playlist** will be displayed. Now you can move or remove files in/from the list.

6.1.2.2 Moving files within the Playlist

1. Select a track to be moved by using the keys **PR+** and **PR-**.
2. Press the **SHIFT** key (red) to mark the selected track for moving.

3. Select the new position of the selected track by using the keys **PR+** and **PR-**.
4. Leave the Move function by pressing the **SHIFT** key (red) again.

   Now you can close the window **Show Playlist** by pressing **EXIT**, or move another track by starting again with step 1, or you may use the

6.1.2.3 Delete files from the Playlist

1. Select a track to be deleted by using the keys **PR+** and **PR-**.
2. Press the **green function key** to remove the selected track from the playlist.
3. Press **EXIT** to end deletion, or go back to step 1 to remove further tracks from the playlist.

6.1.2.4 Delete all files from the Playlist:

1. Press the **yellow function key** to remove all tracks from the playlist.
   You will be asked if you really want to delete all entries.
2. Select **Yes** or **No** by using the keys and , and confirm by pressing **OK**.
   When stating **No**, you will be directed back to the play list. When stating **Yes**, the play list will be completely deleted and you will be directed to the start window of the Media Player.

6.1.3 Edit Audio Files

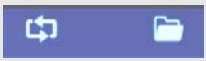
- Press the **blue function key** to go to the Edit mode. Here you can
  - rename tracks by pressing the **red function key**;
  - copy tracks by pressing the **green function key**;
  - and delete tracks by pressing the **yellow function key**;
  - as well as create new folders by pressing the **blue function key**.
- Press the **EXIT** key twice to leave the Edit mode. You will be directed back to the initial window of the Media Player.

6.1.4 Sort Audio Files

- Press key **1** to sort the displayed tracks by name, play time, file size or favorites. Favorites are the tracks that are included in the current play list.

6.1.5 Playback Mode

- Press key **2** to change the playback mode:

Symbol in Media Player-window	Meaning
	Single track is played and repeated.
	All tracks in the current directory are played and repeated in the displayed order.
	All tracks in the current directory are played in random order and are then repeated.

- Press the **EXIT** key to close the Media Player and to return to the menu **REC**.

6.2 Images

The basic steps with image files only slightly differ from the steps with music files (automatic playback of a number of images). The differences are included in the functions available by pressing the keys **2** and **3**.

6.2.1 Configure a Slide Show

➢ Press the key **2** to configure a slide show

1. Select **Slide Show Time** by using the keys **PR+** and **PR-**.
2. Using the keys + and −, select the time period between displaying of two subsequent images (1 to 9 seconds).
   When selecting **Off**, the first selected image will be continuously displayed on the screen.
3. Select **Slide Show Repeat** by using the keys **PR+** and **PR-** to determine by using the keys + and − if the slide show should start again from the beginning after displaying the last image.
4. Select the line **Save – Cancel** by using the keys **PR+** and **PR-**, and then use the keys + and − to determine if the settings should be saved or discarded, and confirm by pressing **OK**.
   You will be directed back to the image list.

6.2.2 Showing all Images in the Current Directory

➢ Press key **3** to display all images in the current directory.

You can also have images being displayed whilst music is being played, e.g. by changing the file type during playback of music (using key **0**) and then starting a slide show.

6.3 Video

6.3.1 Playback Video

1. Select the file to be played using the keys **PR+** und **PR**-. In left half of the screen you see a thumbnail and you can watch the video in preview mode. Use the keys ▶, ⏸, and ■ to control playback.
2. Press **OK** to start playback in full screen mode.
3. Use the keys ▶, ⏸, ■, ◀◀, ▶▶, ◀ and ▶ to control playback.

6.3.2 Edit Video Files

- Press the **blue function key** to go to the Edit mode. Here you can
  - rename tracks by pressing the **red function key**;
  - copy tracks by pressing the **green function key**;
  - and delete tracks by pressing the **yellow function key**;
  - as well as create new folders by pressing the **blue function key**.
- Press the **EXIT** key twice to leave the Edit mode. You will be directed back to the initial window of the Media Player.

6.3.3 Sorting Videos

- Press key **1** to sort the displayed videos by name, play time or file size.

7 Extended Settings and Functions

7.1 Installation

The settings made by smart apply to a standard satellite system. Any further system functions (e.g. unicable system or motor antenna) should be manually set in the menu **Installation**:

CAUTION!

➢ In case of doubt, have those settings being made by an expert. Usually, there are **no** required settings within scope of normal use of the system.

7.1.1 Antenna Connection

1. In the menu **Installation**, select the submenu **Antenna Connection** and confirm by pressing **OK**.
2. Select by using the keys and if a *Fixed Antenna* or a *Motor Antenna* is connected to the receiver.
3. Press **EXIT** to leave the submenu **Antenna Connection**.
4. Press **EXIT** again to leave the menu **Installation** and to return to TV operation, or go to another submenu.

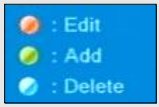
If you selected a *Motor Antenna*, then such antenna should be further configured at the menu item **Antenna Setup**.

7.1.2 Satellite List

The submenu **Satellite List** states a preset list of possible satellites. Depending on your antenna system you can select the satellites used for receiving channels:

1. In the menu **Installation**, select the submenu **Satellite List** and confirm by pressing **OK**
2. Select the satellite you want to receive by pressing the keys **PR+** and **PR-**, and confirm by pressing **OK**.
   The selected satellite will be correspondingly marked (♥).

You may also edit the satellite list by selecting one of the buttons on the right edge of the menu window.



To change an entry:

1. Press the **red function key**.
2. Select by pressing the keys **PR+** and **PR-** if you want to change name or longitude (position).
3. Select the text position to be changed by pressing the keys + and −:
   - Enter the numbers and letters using the numeric keys of the remote control.
   - Press the **red function key (SHIFT)** to switch between upper case and lower case.
   - Press the **green function key** to delete the currently selected position.
   - Press the **yellow function key** to confirm your changes and to return to the satellite list.
   - Press the **blue function key (L/R)** to cancel changes and to return to the satellite list.

To add an entry:

1. Press the green function key.
2. Enter name and longitude (entering of text as described in the section Change).

To delete an entry:

1. Select the satellite to be deleted by using the keys **PR+** and **PR-**.
2. Press the **blue function key**. A window will open, stating the question if you really want to delete the entry.
3. Select *OK* or *No* by using the keys + and −, and confirm your selection by pressing **OK**.
   You will be directed back to the satellite list.

➢ Press **EXIT** to leave the submenu **Satellite List**.

➢ Press **EXIT** to leave the menu **Installation** and to return to TV operation.

7.1.3 Antenna Setup

The submenu **Antenna Setup** states several entries depending on your selection of

Fixed Antenna or *Motor Antenna*

at **Antenna Connection**.

7.1.3.1 Fixed Antenna

➢ At **Satellite**, select the satellite to which the following settings should apply.

The options are limited to such satellites that are marked in the **Satellite List** as such satellites from which you want to receive channels.

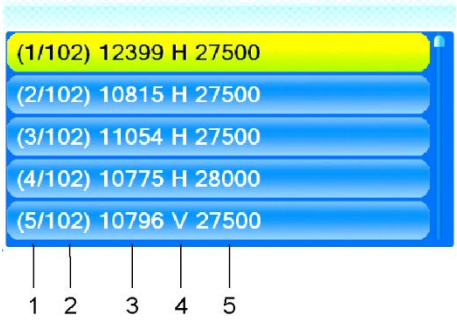
➢ At **LNB Freq**, select the value corresponding to the used LNB. Alternatively, press **OK**, select the corresponding value from the list, and confirm by pressing **OK**.

Possible values LNB frequency (MHz)		
5150	*10600*	*Universal (9750 - 10550)*
5750	*10700*	*Universal (9750 - 10600)*
5950	*10750*	*Universal (9750 - 10700)*
9750	*11250*	*Universal (9750 - 10750)*
10000	*11300*	*Universal (9750 - 10600)*
10050	*5150 - 5750*	*Unicable (9750 - 10600)*
10450	*5750 - 5150*	*Unicable (10200)*

A universal LNB with 9750 - 10600 MHz is the default value.

You can set signal strength and signal quality for receiving of a certain transponder:

- At **Transponder**, select the transponder for which signal strength and signal quality should be displayed at the lower window edge by using the keys + and − (or select **Transponder**, press **OK,** select the desired transponder from the list und confirm by pressing **OK**).



No.	Meaning
1	Sequential number of selected transponder
2	Total number of receivable transponders
3	Frequency (MHz)
4	Polarization, H = horizontal, V = vertical
5	Symbol rate (MS/s)

☞ Orientation of your antenna is optimal with maximum signal strength.

- When using a multi-feed antenna, select the port for the respectively selected satellite at **DiSEqC**[11]**1.0**[12].
- If you want to receive signals from more than four satellites, select the port for the respectively selected satellite at **DiSEqC1.1**[13]. This is set to *Disable* by default.
- Select the menu item **22K** to permanently switch on or off the 22 kHz control voltage for high-low band switching (this is required e.g. for certain antenna systems or to avoid disturbances). In most cases, *Auto* is to be selected (factory setting).
- At **Polarity**, select the correct value for the selected channel. Possible settings are *H* (horizontal), *V* (vertical) and *Auto*. Factory setting is made to *Auto*.

[11] DiSEqC = Digital Satellite Equipment Control, a digital control signal technology with satellite receiving systems
[12] DiSEqC1.0 supports four satellite positions
[13] DiSEqC1.1 supports 16 satellite positions

7.1.3.2 Motor Antenna

- At **LNB Freq**, select the value corresponding to the used LNB. Default value is a universal LNB with 9750 - 10600 MHz.

- At **Motor Type**, select the used control signal technology. Select between *DiSEqC 1.2* and *USALS*.[14] (depending on the used motor). The submenu item **Motor Setting** states different settings depending on your previous selection.

7.1.3.2.1 DiSEqC 1.2

- Select **Delete All** to delete all previously set satellite positions.
- Select **Motor Setting** and press **OK** to open the submenu **Motor Setting**:

To set various antenna positions:

1. Select **Satellite** to select the satellite to which the following settings should apply.
2. Select **Transponder** to select the transponder that should be decisive for the antenna position (usually the transponder that is used to send your preferred channel).
3. Select **Pos No. & Save** to determine a position number at which the respective satellite (i.e. the respective antenna position) should be saved.
4. Select **Go to X** to call a position from which you want to make the selection (the value *Reference* is the zero position).
5. Select **Save** and turn the antenna to the west or east by using the keys + and −. Search for maximum values of signal strength and signal quality (are displayed at the lower screen edge).
6. Then press **OK** to save the found position. A query will be displayed.

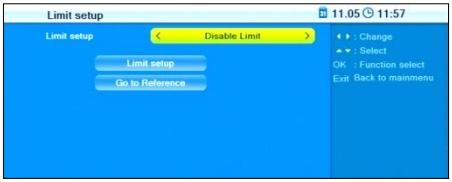
[14] As compared to 1.0 and 1.1, DiSEqC1.2 offers the additional possibility of rotor control, USALS = Universal Satellites Automatic Location System (particularly simple motor antenna control)

7. Confirm change of position by pressing **Yes** or discard such change by pressing **No**.
8. Repeat the steps 1 to 6 for any further satellites/transponders, if applicable.

➢ Select **Recalculation** and press **OK** to discard any previous settings and to again determine antenna position.

➢ Press **EXIT** to return to the submenu **Antenna Setup**.

➢ Select **Limit setup** and press **OK** to open the window **Limit set-up**.



1. Select **Limit setup** to switch between *Disable Limit*, *West Limit* and *East Limit*.
2. Mark the button **Limit setup** and move the limit - as defined in the previous step - to the east or west by using the keys + and −.
3. Mark the button **Go to Reference** and then press **OK** to move the motor antenna to its starting position.
4. Press **EXIT** to return to the submenu **Antenna Setup**.

7.1.3.2.2 USALS

A satellite position is defined as reference, and the data provided for latitude and longitude are then used together with such basic values to calculate the rotary movement for all remaining satellites.

➢ Select **Local Longitude** to enter the longitude of the position of your antenna by using the numeric keys of your remote control.

➢ Select **Local Latitude** to enter the latitude of the position of your antenna by using the numeric keys of your remote control.

➢ Select **Motor Setting** and press **OK** to open the submenu **Motor Setting**.

1. Select **Satellite** to select the satellite that should be used as reference for USALS control of the antenna.

2. Select **Transponder** to select the transponder that should be decisive for the antenna position (usually the transponder that is used to send your preferred channel).
3. Align your motor antenna so that signal strength and signal quality (are displayed at the lower screen edge) reach maximum values.
4. Press **EXIT** to return to the submenu **Antenna Setup**.

➢ In the submenu **Antenna Setup**, select the item **Limit Setup** and press **OK** to open the window **Limit Setup**. Proceed as described above.

7.1.4 Single Satellite

Here you can scan individual satellites for receivable channels.

➢ At **Satellite**, select the satellite for which the scan should be performed.

Also here, options are limited to the satellites that are marked in the **Satellite List** as such satellites from which you want to receive channels.

➢ Select **Only FTA**[15] to determine if scan should be made only for FTA channels or for all channels.

➢ At **Scan Channel**, select if you want to perform scan only for TV channels, only for radio channels or for TV + radio channels.

➢ At **Network Search**, select if you want to search for an individual channel (*No*) or all channels of a channel network (*Yes*), e.g. PRO7, SAT1, KABEL1, SIXX. The item **Network Search** will only be active after selecting the scan mode **Preset Scan** (i.e. Standard Scan)**.**

➢ At **Scan Mode**, select the scan mode:

– **Preset Scan (Standard Scan)**: In such mode, only the frequencies included in the TP list are regarded.

– **Auto Scan (Blind Scan)**: Here, all frequencies are scanned, whether they are included in the TP list or not.

➢ At **Tuner**, select the LNB to process the signals (if only one LNB is present, then this item will not be active).

➢ Start channel search by selecting **Search** and confirm by pressing **OK**.

[15] FTA = **F**ree **T**o **A**ir = unencrypted channels

7.1.5 Multi Satellite

Multi Satellite differs from **Single Satellite** by the fact that all satellites marked in the satellite list are scanned for receivable channels.

7.2 TV Channel List / Radio Channel List

You can individually customize the lists. There are various available possibilities for editing. For reasons of simplification, only editing of TV lists will be explained in the following. Editing of radio channel lists will be performed corresponding to editing of TV channel lists.

1. In the menu **Edit Channel**, go to the sub-menu **TV Channel List**.
2. Press **OK** to open the window **TV Channel List**.

With the editing processes described in the following sections you will be respectively asked - when leaving the **Edit Channel** menu (or when changing the channel list or when selecting another function) - if you want to overwrite the factory-set channel program list, i.e. you may accept the performed changes (*OK* - then the channel list will be correspondingly changed) or discard them (*No* - then the original channel list will not be changed).

7.2.1 Add Channel to Favorites

1. Mark the corresponding channel by using the keys **PR+** and **PR-**.
2. Press the key **FAV** and confirm by pressing **OK**.
   A selection window with the eight available favorite lists will open.
3. Select the favorite list to which the channel is to be allocated by using the keys **PR+** and **PR-**, and confirm by pressing **OK**. The respective favorite list is correspondingly marked ( ).

4. The channels allocated to a group of favorites will be marked in the channel lists.

5. Press the key **FAV** once again or the key **EXIT** to leave the function **Favorite**.

7.2.2 Provide Channels with Password Protection (Lock Against Unauthorized Access)

1. Mark the corresponding channel by using the keys **PR+** and **PR-**.
2. Press the **red function key**.
3. Confirm by pressing **OK**. You will be requested to enter a password.
4. Enter a password.
   Locked channels are marked in the channel lists .
5. Again press the **red function key** to leave the function **Lock**.

> From now on, first the password has to be entered to be able to watch such a locked channel.

7.2.3 Skip Channels when Switching from Channel to Channel (Zapping)

1. Mark the corresponding channel by using the keys **PR+** and **PR-**.
2. Press the green function key.
3. Confirm by pressing **OK**.
   Channels to be skipped are marked in the channel lists.

4. Again press the **green function key** to leave the function **Lock**.

> From now on, the channel is skipped when switching from one channel to the next (zapping).

7.2.4 Move Channels to Another Channel Position:

1. Press the **yellow function key** to activate the function **Move**.
2. Mark the channel to be moved by using the keys **PR+** and **PR-**, and confirm by pressing **OK**.
   The channel to be moved is marked in the channel list.

0015 SAT.1 Bayern . If you want to move more than one channel, then mark further channels by using the keys **PR+** and **PR-**, and respectively confirm by pressing **OK**. The channels to be moved should not be necessarily in an uninterrupted sequence.
Example:

Before moving – three channels are marked	After moving

3. Select the channel number to which the channel/channels are to be moved to by using the keys **PR+** and **PR-**, and again press the **yellow function key**.
4. Press the **EXIT** key to leave the function **Move**.

7.2.5 Rename Channels

1. In the sub-menu **Edit Channel – TV Channel List**, press the **blue function key**.
2. Press the **green function key** to activate the renaming process.
3. Mark the channel to be renamed by using the keys **PR+** and **PR-**, and confirm by pressing **OK**.
4. The window **Rename** will be displayed.

   – Select the character to be changed by using the keys + and −.
   – Enter the new character respectively by using the numeric keys of the remote control.
   – Press the **red function key (CAPS)** to switch between upper case and lower case.
   – Press the **green function key (DEL)** to delete the respectively selected character.

– Press the **yellow function key (OK)** to accept the changes made so far and to close the window **Rename**.
– Press the **blue function key (CANCEL)** to discard the changes made so far and to close the window **Rename**.

5. Press the **green function key** to leave the Rename mode.

7.2.6 Delete Individual Channels from Channel List

1. In the submenu **Edit Channel – TV Channel List**, press the **blue function key**.
2. Again press the **blue function key** to access the Delete mode.
3. Mark the channel to be deleted by using the keys **PR+** and **PR-**, and confirm by pressing **OK**. The respective channel is correspondingly marked

.
Repeat step 3 as long as all channels to be deleted are marked.
4. Again press the **blue function key** or the **EXIT** key to leave the Delete mode.
5. If you agree to overwrite the factory-set channel list when leaving the menu (see above), the marked channels will be deleted.

7.2.7 Delete All

To delete all channels

1. Select **Delete All** in the menu **Edit Channel**.
2. Press **OK**. You will be asked if you want to delete all channels.
3. Select the answer *Yes* or *No* by using the keys and , and confirm by pressing **OK**.

After deletion of all channels, all channel lists will be empty and should be newly created!

7.3 Rename Favorite Lists

In the submenu **Favorite** of the menu **Edit Channel** you can rename favorite lists.

1. Select the favorite list to be edited by using the keys **PR+** and **PR-**, and confirm by pressing **OK**.
2. An on-screen keyboard will be displayed.

3. Select letters/numbers by using the keys **PR+** and **PR-** as well as the keys and , and confirm by pressing **OK**.

Switch between upper case and lower case by pressing the **yellow function key**.

Delete individual letters/numbers by pressing the **SHIFT** key (red).

- Repeat this until the desired favorite name is entered.
- Press the blue **L/R** key to return to the sub-menu **Favorite** and press **EXIT** to leave the sub-menu.

7.4 Display Setting

- Select the submenu **Display Setting** in the menu **Tools** and confirm with **OK**.
- Select **Brightness** to change the brightness value from 0 to 100 (default value is 50) by using the keys and .
- Select **Contrast** to change the contrast value from 0 to 100 (default value is 50) by using the keys and .
- Select **Saturation** to change the saturation value from 0 to 100 (default value is 50) by using the keys and .
- Select **Hue** to change the hue value from 0 to 100 (default value is 50) by using the keys and .
- Select **Sharpness** to change the sharpness value from 0 to 10 (default value is 5) by using the keys and .

7.5 Format of the Video Signal at the SCART Output

1. In the window **TV system** move highlight on **Scart Out** item and press **OK**.
2. Press the keys **PR+/PR-** to select from the list the format of the video signal at the SCART output and press **OK**. Possible values are *YUV* and *RGB*. Default is *YUV*.

Due to the internal signal processing it's not anymore possible to select higher resolutions than 576i even at the HDMI if RGB is selected

7.6 Format of the Audio Signal at the Digital Audio Out

1. Select the submenu **TV System** in the menu **System Setup** and confirm with **OK**.
2. Select **Digital Audio Out** to set the format of the digital audio signal by using the keys + and −:
   PCM – Pulse Code Modulation (default),
   DD – Dolby Digital (multi-channel audio).

For programs broadcasted in DD format, select DD if you have a connected DD-compatible multi-channel amplifier or a DD-compatible home cinema system, or if your TV set is capable of processing DD signals.

7.7 SmartLink (CEC)

If you have a CEC[16]-compatible TV set, and receiver and TV set are connected via HDMI you can switch on and off (standby mode) both sets with the remote control of your smart CX01:

1. Select in the menu **System** the submenu **TV System** and press **OK**.
2. Select **SmartLink** and use the keys + und − to switch the SmartLink function on and off.

7.8 Timer

In the submenu **Timer Setting** of the menu **System Setup** you can program, edit and delete up to eight different events (channel switch).

1. Mark a timer by using the keys **PR+** and **PR-**.
2. Press the **OK** key to open the timer.
3. Mark the line Timer Mode by using the keys **PR+** and **PR-**.

[16] CEC = Consumer Electronics Control = HDMI feature for entertainment units, provides via HDMI various control functions, e. g. "one touch recording" or "system standby". The TV set is the control center and the TV remote control becomes the remote control of the whole system.

4. You can select from the following possibilities by using the keys and :

Value	Meaning
Off	The timer is deactivated.
Once	Single event (only once).
Daily	Event occurs every day at the same time (e.g. the news program every day)
Weekly	Event always at the same weekday
Monthly	Event occurs every month at the same day (e.g. every 20th)
Monday to Friday	Event Monday to Friday at the same time .

5. In line **Timer Service** the option *Channel* is selected. There is not any possibility to change this.
6. Mark the line **Wakeup Channel** by using the keys **PR+** and ▼ / **PR-**, and select the channel to be displayed by using the keys and .
7. Mark the line **Wakeup Date** by using the keys **PR+** and **PR-**, and enter the date by using the numeric keys.
8. Mark the line **On Time** by using the keys **PR+** and **PR-**, and enter the on time by using the numeric keys.
9. Mark the line **Duration** by using the keys **PR+** and **PR-**, and enter duration of the program by using the numeric keys.

You can go from letter to letter (position to position) in the date and time fields by pressing the keys and .

10. Mark the button **Save** by using the keys **PR+** and **PR-**, and confirm by pressing **OK** (or select **Cancel** and confirm by pressing **OK** if you want to cancel programming – then you will return to the sub-menu **Timer Setting**).

You can directly add programs marked in EPG to the timers. This significantly facilitates programming as you do not have to make settings for channel, date and time.

7.9 OSD[17] Setting

7.9.1 Hide OSD

➢ Using the keys and , set the number of seconds after which the OSD should be hidden. You may set values from *1 to 10 seconds*.
Default value is *5*s (factory setting).

7.9.2 OSD Transparency

➢ Select transparency of the on-screen menu by using the keys and .
You may set values from *0% (OFF)* (no transparency) to *40%* (almost transparent). Default value is *OFF*.

7.10 LNB Supply Voltage at LNB IN

1. Select in the menu **System Setup** the submenu **Other** and press **OK**.
2. Select **LNB Power**, to switch on /off the LNB supply voltage at **LNB IN** using the keys und .

7.11 Automatic Standby Function

Based on current EC regulations, this receiver is equipped with an energy saving system. After three hours, the receiver will automatically switch to energy save mode (energy consumption of less than 0.5 W) unless a function is triggered via remote control during such period (e.g. volume change or switching of channels). You can deactivate the automatic standby function via the menu.

1. Select in the menu **System Setup** the submenu **Other** and press **OK**.
2. Select **Auto Standby** to switch on or switch off the automatic standby function, using the keys and (factory setting is **Auto Standby** *On*).

7.12 Simultaneous Playback of Picture and Sound

Asynchrony between the image and the sound signals might for example occur in your home cinema system due to the use of long cables. Your smart CX01

[17] OSD = On Screen Display

offers the possibility to balance this by slightly shifting the audio against the video signal.

1. Select in the menu **System Setup** the submenu **Other** and press **OK**.
2. Select **AV Sync Value** to set a value of shift between *-500ms* and *+500ms* using the buttons + und − (factory default is *0 ms*).

7.13 LNB IN / OUT Loop Through (Loop Standby)

Basically, after turning off the receiver it switches to power saving mode ("Deep Standby", red LED lights up). At the **LNB OUT** terminal there is no or only a highly attenuated signal. If you want to use **LNB OUT** anyway, you can set that in the submenu **Other** of the **System Setup** menu:

➢ Select **Loop Standby** to switch on and off the possibility of looping through the satellite signal, using the buttons + und − (factory default is **Loop Standby** *off*).

CAUTION!

If you select **Loop Standby** *On*, the receiver goes into standby mode after switching off, but not into the power saving mode. The display shows the current time.

7.14 RAPS System

7.14.1 Show the Date of the RAPS File on the Receiver

The window RAPS System displays at **Last changes from** the date of the RAPS file on the receiver.

7.14.2 Setting RAPS Mode

➢ Select **RAPS-Modus** to configure RAPS:

Update	The receiver channel list will only be updated.
Config	The receiver will be set to factory defaults. The channel list will be created completely new (similar to the first installation, see section "Initial Start-Up", page 22).
Setup	Here you can set the RAPS transponder manually. **Attention!** Change the RAPS transponder only after regarding advice from smart. If you change it apart from that, RAPS cannot work correctly anymore.

➢ To activate the desired mode, select **Start** and press **OK**.

7.14.3 Enabling Automatic RAPS Updates

➢ Select **Auto RAPS-Scan**, to set - using the keys + und − - whether the channel list should be updated always at shut down (*On*) or not (*Off*). Factory setting is **Auto RAPS-Scan** *Off*.

7.15 Remove USB Device safely

1. Select in the menu **Tools** the submenu **Remove USB device** and press **OK**.
2. Move highlight on the button ***OK*** and press **OK** to deactivate the USB storage device
   Move highlight on the button ***Cancel*** and press **OK** to cancel the deactivation.

7.16 Software Version

The submenu **Information** of the menu **Tools** displays the current version number of the smart CX01 software.

7.17 Factory Settings

If you erroneously saved wrong settings or if you want to pass on the receiver without your settings, then you can reset the receiver to the factory settings (reset):

To reset the receiver:

1. In the menu **Tools**, select the sub-menu **Factory Settings**.
2. Press the **OK** key.
   You will be asked if you want to reset the receiver and delete individual settings.
3. Select **Yes** or **No** by using the keys und , and then press **OK**.
   After resetting your receiver, the language selection menu will be displayed.

7.18 Update of the Receiver Software

There are two possibilities to update your receiver:

7.18.1 Software Update via Satellite

If you receive your TV signal via Astra 19.2°E, then you can perform an update of the receiver software via satellite:

In the menu **Tools**, select the submenu **S/W Upgrade by**.

1. Leave all settings unchanged (factory settings).

The option of software update via satellite is only possible via Astra 19.2°E. Correspondingly, all settings should be left unchanged in the status as preset by smart:

Line	Target value
Satellite	(1/1) Astra 19.2°E
Transponder	(61/84) 12604 H 22000
Frequency	12604
Symbol rate	22000
Polarization	H
Download PID	343

2. Mark the button **Start** by using the keys **PR+** and **PR-**, and confirm by pressing the **OK** key.
   Now it is being checked if the software currently installed on the receiver is up-to-date. If it is not up-to-date, then the current software version will be downloaded via satellite and installed onto the receiver. After end of installation you will be asked if the update should be saved.

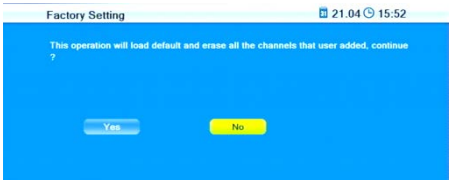
3. Select the option *Yes* to accept the update.
   The satellite update may take up to one hour. **Do not switch off the receiver during such period!**

7.18.2 Update via USB

1. Search for the upgrade file on the internet page www.smart-electronic.de (menu item Support) and save it to a USB data storage.
2. Unpack the file with the ending .abs and copy it to the USA data storage.

> Please note that the upgrade file (*.abs) is copied directly to the root directory of the USB data storage (**no subdirectory**)!

3. Connect the data storage to your receiver.
4. In the menu **Tools**, select the sub-menu **Upgrade by USB** and press the **OK** key.
5. At **Upgrade Mode**, select the upgrade mode **Allcode** by using the keys + and −.
6. At **Upgrade File**, select the file copied in step 2.
7. Select the **Start** button and confirm by pressing **OK**.
   The message on the right will be displayed:



The upgrade will be performed after selecting *Yes* by using the keys + and − and pressing **OK**. Then, the receiver will automatically perform new start.

8 Operation in a Unicable System

8.1 About Unicable

The HDTV receiver smart CX01 allows for changing the receiving mode to the unicable standard. This makes it possible - depending on the antenna type - to connect up to eight independent receivers to only one main line.

For this, an own IF channel and a corresponding frequency should be set for each receiver via the settings menu.

Allocation of channels and frequencies depends on the used LNBs and/or multi-switches.

The data sheet and the technical documentation of your LNB and/or multi-switch include an allocation table similar to the following table.

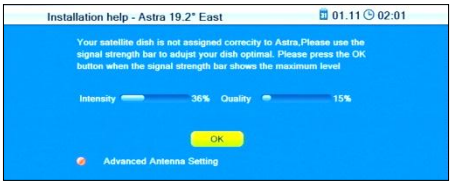
8.2 Allocation of IF Channels and Frequencies

Receiver	IF channel	Exemp. frequency (MHz)	Frequency (MHz)
Receiver 1	1	1284	
Receiver 2	2	1400	
Receiver 3	3	1516	
Receiver 4	4	1632	
Receiver 5	5	1748	
Receiver 6	6	1864	
Receiver 7	7	1980	
Receiver 8	8	2096	

➢ Enter the frequencies of your receiving system into the last column of the table so that all relevant information is quickly available. Rule of thumb: highest frequency → shortest cable path.

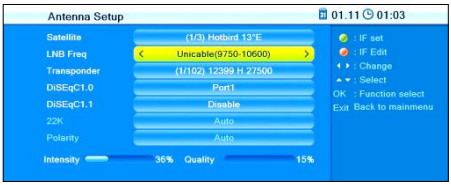
8.3 Installation

If the receiver is connected to a unicable system, then RAPS installation will automatically cancel. The window to the right will open.

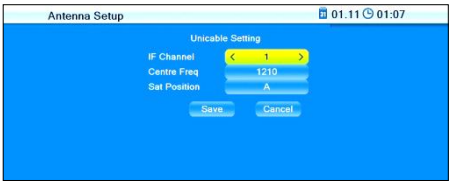

Installation help - Astra 19.2° East
01.11 02:01
Your satellite dish is not assigned correcity to Astra,Please use the signal strength bar to adjust your dish optimal. Please press the OK button when the signal strength bar shows the maximum level
Intensity
36%
Quality
15%
OK
Advanced Antenna Setting

1. Press the red function key (SHIFT) to open the submenu Antenna Setup.

2. Select the menu item **LNB Freq** to set *Unicable(9750-10600)*.
3. Press the green function key to open the window Antenna Setup Unicable Setting.



4. Select the menu item **IF Channel** and set the IF channels (start with channel 1; respectively allocate one of the IF channels - in ascending order - to the connected receivers).



5. Select the menu item **Center Freq** to set the frequency corresponding to the IF channel (see allocation table).
6. Select the menu item **Sat Position** to set the respective satellite position.
7. Mark the button **Save** and press **OK** to save your entries and to return to the first window **Antenna Setup**

   or

   mark the button **Cancel** and press **OK** to discard any previous entries in this window and to return to the first window **Antenna Setup** without saving.
8. Press the red function key to open the window Antenna Setup Center Freq.
9. Leave the menu by pressing **EXIT** (settings will be saved). RAPS installation will be continued automatically.

9 Cleaning

WARNING!

There is the risk of electric shock when cleaning the receiver!

- Always disconnect mains plug from power outlet before cleaning.
- Never clean the receiver using a damp cloth.
- Always ensure that no liquid enters the receiver.

CAUTION!

There is the risk of damaging the receiver when cleaning the receiver!

- Do not use solvent-containing cleaning agents like petroleum ether or thinner.
- Clean the housing of the receiver using a dry cloth.

10 Transport and Decommissioning

Proceed as follows if you want to transport the receiver of if you do not want to use the receiver any more:

1. Disconnect the receiver and all connected devices from power supply.
2. Disconnect any cables connected to the receiver.
3. Remove the batteries from the remote control.
4. Put receiver, cables and remote control into the original packaging.
5. Store the receiver and the accessory parts at a dry and dust-free location.
6. Protect the receiver from freeze.

11 Troubleshooting

This section includes a list of general errors that could occur with operation of the receiver. Each error states a possible cause and solutions.

Symptom	Possible cause(s)	Solution
The display does not light.	The power cord is not connected. The power switch is not switched on.	Connect the power cord to the power outlet. Switch on the power switch.
No audio or video; the receiver states "OFF" and the red LED lights up.	The receiver is in standby mode.	Press the **POWER** key to switch on the receiver.
No audio or video.	No signal or only weak signal.	Check the cable connections to the receiver and from the receiver to the connected devices; fasten cables, if required.
The TV set does not show a picture.	The system is not correctly connected.	Verify connection of cable and fasten cable, if required.
Picture only in black and white and/or incorrect synchronization.	The video format of your receiver is not correctly set.	Adapt broadcast television system of the receiver to the broadcast television system of the TV set.
The remote control does not operate.	The batteries are empty. The remote control shows into wrong direction.	Replace empty batteries with new batteries. Direct the remote control towards the front panel of the receiver.

Symptom	Possible cause(s)	Solution
• Receiver switches on and off continuously **or** • Display: „LNBP“ and screen message: "Attention, LNB short-cut!", no TV image.	Short-cut at the connection from the LNB to the receiver or the LNB itself	• Disconnect the connection LNB - Receiver. • Check the LNB cable, the plug and / or the LNB on any short-cut (e.g. water in the LNB) and remove them. • Reconnect the units

New operating software for the receiver will be published, if required. This can be easily downloaded at the website www.smart-electronic.de.

If the malfunction still cannot be remedied, then please contact your specialist dealer.

Service Hotline

In case of **technical problems**, **connection problems** or general **questions on settings**:

Service Hotline: +49 (0) 7724 9478-555

Fax: +49 (0) 7724 9478-333

E-mail: service@smart-electronic.de

Internet: www.smart-electronic.de

12 Disposal

CAUTION!

- Do not dispose of the receiver and the batteries in normal household refuse!

- Please ask your municipal administration on possibilities for environmentally friendly and proper disposal of the receiver.
- Please take the batteries to a collecting point.

The WEEE[18] symbol on the product and its packaging states that this product is an electrics or electronic device. Do not dispose of such device in the household refuse, but take it to your local municipal collecting point (collection station).

Your contribution to disposal of this product will protect the environment and the health of all people. Material recycling helps to reduce consumption of raw materials.

Please help to save our environment!

[18] WEEE = Waste Electrical and Electronic Equipment. The WEEE directive is the EC directive 2002/96/EC on reduction of the increasing amount of waste from electrical and electronic equipment not used any more. Its objective is prevention, reduction and environmentally friendly disposal of the increasing amounts of electronic waste.

13 Technical Data

13.1 General Information

• HDTV 1080p • Unicable compatible (EN50494) • Standby Save Energy mode • Kanalsortierung: Alpha / Num. / Genre / HDTV / Sat	• RAPS • Favorite lists • EPG • JPEG and MP3 playback
Input frequency range	950 ~ 2150 MHz
Input impedance	75Ω
Input level	-25 ~ -65 dBm

13.2 Remote Control

Range	up to 7 m
Batteries	2 x type AAA

13.3 Mains Adapter

Power consumption in standby	less than 1 W
Mains voltage	175 - 250 V ~, 50/60 Hz

13.4 Connections

Data storage interfaces	USB 2.0
Antenna in	F-socket
Tuner LOOP THROUGH	F-socket
Service	RS232
Audio out	1 x RCA digital audio
	1 x RCA stereo
Video out	1 x HDMI
	1 x SCART connector (EURO AV)

13.5 Temperature

Operating temperature	+5° C to +40° C
Storage temperature	-40° C to +65° C

13.6 Dimensions and Weight

Width	260 mm
Height	45 mm
Depth	165 mm
Weight	approx. 1.2 kg

14 Declaration of Conformity

The company smart electronic GmbH, Industriestraße 29, 78112 St. Georgen, Germany herby declares that this product meets the following directives and standards:

- **Directive on electromagnetic compatibility 2004/108/EC**
  - EN 55013:2001+A1:2003+A2:2006
  - EN 55020:2007
  - EN 61000-3-2:2006+A1:2009+A2:2009
  - EN 61000-3-3:2008
- **Low voltage directive 2006/95/EC**
  - EN 60065:2002+A1:2006+A11:2008

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